



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/553,074

10/12/2005

Daisuke Kanenari

21713-00059-US1

3776

30678

7590

03/27/2008

CONNOLLY BOVE LODGE & HUTZ LLP
1875 EYE STREET, N.W.
SUITE 1100
WASHINGTON, DC 20036

EXAMINER

EASHOO, MARK

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

03/27/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/553,074	Applicant(s) KANENARI ET AL.	
	Examiner Mark Eashoo	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 5-7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Amended Claim 5 has been amended to recite the limitation “wherein said pulse drying is carried out by adding a viscosity stabilizing agent to the natural rubber latex”. The original specification and claims never disclose that adding a viscosity stabilizing agent to the latex will result in pulse drying of the latex, rather they disclose the pulse drying as occurring in the presence of a viscosity stabilizing agent (original claim 5, original specification page 3).

Claims 5-7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Amended Claim 5 has been amended to recite the limitation “wherein said pulse drying is carried out by adding a viscosity stabilizing agent to the natural rubber latex”. The original specification and claims never disclose how adding a viscosity stabilizing agent to the latex will result in pulse drying of the latex, rather they disclose the pulse drying as occurring in the presence of a viscosity stabilizing agent (original claim 5, original specification page 3). Because of this a person having ordinary skill in the art at the time of invention would not be enabled to affect pulse drying through the addition of a viscosity reducing agent.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the

Art Unit: 1796

subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozer et al. (US 5,252,061) in view of Miyatake et al. (US 2003/0092819), Toratani et al. (JP 2002-069103) and Chandran et al. (US 5,842,289).

Considering Claims 1-3: Ozer et al. teaches a method using a pulse combustion dryer (Col. 1, lines 58-59) to dry different polymers such as acrylic-latexes (Col. 7, line 42). Moreover, Ozer et al. teaches that material introduced into the system will be atomized by hot gas pulses (Col. 1, lines 40-46). This atomization causes rapid drying of the material and allows for it to be collected as a fine, dry powder (Col. 1, lines 40-46). Additionally, it was well-known in the art at the time of the invention that rubber latexes and acrylic latexes are equivalents.

Ozer et al. does not teach that the solid concentration of the rubber latex is 60% by weight or less. However, Miyatake et al. does teach an acrylic rubber latex having a solid concentration of 10-50% by weight, more preferably 20-40% by weight (¶50). Ozer et al. and Miyatake et al. are combinable because they are both reasonably pertinent to the particular problem with which the inventor was concerned, namely, obtaining dried particles from a latex. At the time of the invention, a person of ordinary skill in the art would have found it obvious to have used a rubber latex having a sold concentration of 10-50% by weight, as taught by Miyatake et al., in the pulse combustion drying method, as taught by Ozer et al., and would have been motivated to do so because of the easiness in controlling the size of the particles as suggested by Miyatake et al. (¶50).

Ozer et al. does not teach that the frequency of the pulse combustion is between 250 and 1200 Hz. However, Chandran et al. does teach a pulse combustion device used at a frequency in a range of from about 50 Hz to about 500 Hz (Col. 3, lines 13-16). Ozer et al. and Chandran et al. are combinable because they are from the same field of endeavor, namely, pulse combustion devices. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use a frequency range of about 50 Hz to about 500

Art Unit: 1796

Hz, as taught by Chandran et al., in the pulse combustion drying method, as taught by Ozer et al., and would have been motivated to do so because if the frequency is too high or too low, drying may not occur or may not be sufficiently obtained.

Ozer et al. does not teach that the drying chamber is at a temperature of 140° C or less. However, Toratani et al. does teach using a temperature of between 100° C and 140° C when drying is done in a single step (§23). Ozer et al. and Toratani et al. are combinable because they are both reasonably pertinent to the particular problem with which the inventor was concerned, namely, drying latexes. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use a single step drying temperature of between 100° C and 140° C, as taught by Toratani et al., in the pulse combustion drying method, as taught by Ozer et al., and would have been motivated to do so because rubber latexes are temperature sensitive.

Considering Claims 4-7: Ozer et al. does not teach using a natural rubber latex and adding at least 0.001 parts by weight of a viscosity stabilizing agent such as a hydroxyl amine, a semicarbazide or a dimedone to the natural rubber latex. However, Toratani et al. does teach using a natural rubber latex (§1) and adding 0.001 to 3 parts by weight based on the solid content in the natural rubber latex (§20) of a viscosity agent such as a hydroxylamine, a semicarbazide, or a dimedone to the natural rubber latex (§4). At the time of the invention, a person of ordinary skill in the art would have found it obvious to use add 0.001 to 3 parts by weight of a viscosity agent such as the ones listed above to a natural rubber latex, as taught by Toratani et al., in the pulse combustion drying method, as taught by Ozer et al., and would have been motivated to do so because it can help to prevent storage hardening (§4), as suggested by Toratani et al., and it will help to keep the natural rubber latex more viscous.

Response to Arguments

Applicant's arguments filed January 2, 2008 have been fully considered but they are not persuasive, because:

A) In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

B) In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., suppression of gelling) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the

Art Unit: 1796

specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Correspondence

Any inquiry concerning this communication should be directed to Mark Eashoo at telephone number (571)272-1197.

/Mark Eashoo/
Supervisory Patent Examiner, Art Unit 1796
19-Mar-08

Mark Eashoo
SPE
Art Unit 1796